ZAYTSEV, M.K.

Economic calculations in the sinking of wells. Neft. khoz. 38 no.4:51-52 Ap '60. (MIRA 14:8)
(Oil well drilling)

ZAYTSEV, M.I., kand. [illegible] nauk; [illegible], G.A., [illegible] nauk, dotsent

New trends in the development of [illegible]. [illegible]
5-[illegible] '64. [illegible]

ZAYTSEV, M.I.

USSR/Mathematics - Lattices Jan/Feb 53

"Aggregate of Orderings of an Abelian Group," M. I. Zaytsev

Uspekhi Matem Nauk, Vol VIII, No 1(53), pp 135-137

States that A. I. Mal'tsev ("Ordered Groups," Iz Ak Nauk SSSR, Ser Mat, Vol 13, No 6, 473-482, 1949) found the necessary and sufficient conditions that an abstractly assigned group be able to be ordered; this theory of ordered groups is closely connected with the theory of resolvable groups. Establishes a simple solution for G. Birkhoff's problem 192 to find all nonisomorphic orderings of an Abelian group without torsion possessing a finite number of generatrices (Lattice Theory, p 227, 1948). Submitted 11 Nov 52.

ISLENT'YEV, Petr Alekseyevich; FODIMAN, L.V., redaktor; ZAYTSEV, M.I., retsenzent; KOPELEVICH, Ye.I., redaktor; MEDVEDEV, L.Ya., tekhnicheskiy redaktor

[Methods of calculating the demand for dyes and chemical materials by individual cotton mills] Metodika podscheta potrebnosti v krasiteliakh i khimicheskikh materialakh dlia otdelochnukh khlopchatobymazhnykh fabrik. Pod red. L.V.Fodimana. Moskva, Gos. nauchno-tekhn. izd-vo Ministerstva promyshlennykh tovarov shirokogo potrebleniia SSSR, 1954. 79 p. (MLRA 8:6)

(Dyes and dyeing--Cotton)

ZAYTSEVA, M.G.; SEDENKO, D.M.

Investigation of cyanide-resistant and nonresistant respiration in wheat. Fiziol. rast. 11 no.2:262-269 Mr-Ap '64. (MIRA 17:4)

1. Timiriazev Institute of Plant Physiology, U.S.S.R. Academy of Sciences, Moscow.

ZAYTSEV, M. G.

Zaytsev, M. G. "Acute gastro-duodenal hemorrhages during ulcerous infection and its treatment," Trudy Gospit. khirurg. kliniki (Sverdl. gos. md. un-t), Vol. IV, 1948, p. 93-107

SO: U-3050, 16 June 53, (Letopis 'Zhurnal 'nykh Statey, No. 5, 1949)

ZAYTSEV, M. G.

Zaytsev, M. G. "Foreign substance in the submucous membrane of the stomach which simulates ulcerous infection with stenosis of the pylorus," Trudy Gospit. khirurg. kliniki (Sverdl. gos. med. un-t), Vol. IV, 1948, p. 70-71

SO: U-3850, 16 June 53, (Letopis 'Zhurnal 'nykh Statey, No. 5, 1949)

ZAYTSEV, M. G.

Zaytsev, M. G. "Ulcerous infection of the stomach and duodenum in children and young people," Trudy Gospit. khirurg. kliniki (Sverdl. ros. med. in-t), Vol. IV, 1948, p. 53-69

SO: U-3850, 16 June 53, (Letopis 'Zhurnal 'nykh Statey, No. 5, 1949)

ZAYTSEV, M. G.

Zaytsev, M. G. "On the problem of etiopathogenesis of ulcerous infections in children and yound people," Trudy Gospit, khirurg. kliniki (Sverdl. roo. med. in-t), Vol. IV, 1948, p. 48-52

SO: U-3850, 16 June 53, (Letopsis 'Zhurnal 'nykh Statey, No. 5, 1949)

STEPANITSKIY, N.M.; BRANTKOVSKIY, L.F.; ZAYTSEV, M.F.; ANTONOV, D.G., otv.red.; PEVZNER, A.S., zav.red.izd-va; RUDAKOVA, N.I., tekhn.red.

[Uniform time and pay standards for construction, assembly, and repair operations in 1960] Edinye normy i rastsenki na stroitel'nye, montazhnye i remontno-stroitel'nye raboty, 1960 g. Moskva, Gos.izd-vo lit-ry po stroit., arkhit. i stroit.materialam. Sbornik 28. [Assembling the hoisting and conveying equipment] Montazh pod"emno-transportnogo oborudovaniia. No.2. [Non-continuous equipment] Oborudovanie preryvnogo deistviia. 1960. 186 p. (MIRA 13:6)

1. Russia (1923- U.S.S.R.) Gosudarstvennyy komitet po delam stroitel'stva. 2. TSentral'noye normativno-issledovatel'skoye byuro Ministerstva stroitel'stva elektrostantsiy SSSR (TsNIB MSES) (for Brantkovskiy, Zaytsev).

(Wages) (Cranes, derricks, etc.)

ZAYTSEV, M.A.; VARYZGIN, Ye.S.

Portable housing, service, and work buildings for prospecting.
Razved. i okh. nedr 28 no.12:19-24 D '62. (MIRA 16:5)

1. Geolstroyproyekt.
(Buildings, Portable) (Prospecting)

Jul 52

USSR/Electronics - Television
Wind-Electric Power

"A Television Receiver Supplied From a Wind-Electric Motor," M. Zaytsev, Svinskaya Station, Tula Oblast

"Radio" No 7, p 63

Describes a homemade television receiver with which the programs of the Moscow Television Center are received regularly at a distance of 110-115 km from Moscow. The wind-elec motor is used in conjunction with a 400 amp-hr storage battery and vibrator power packs.

226T16

ZAYTSEV, M.

226T16

Mar 53

ZAYTSEV, M.
USSR/Electronics - Television
Wind-Electric Power

"A Television Receiver Supplied from Storage Batteries" / M. Zaytsev, Post 118 km Moscow-Kursk RR

Radio, No 3, pp 37-39

The system includes a 1000-w, 24-v, wind-driven generator (type 4563A, rewound for 6v), a 6-v battery, a vibrator power pack, a charge-discharge board, ~~television~~ TV receiver, and a "Rodina-47" receiver with an ultra-short-wave ~~unit~~ adapter. The generator is used to charge the storage batteries and the vibrator power pack supplies the plates and screen grids of the tubes in the tv receiver.

ZAYTSEV, M.

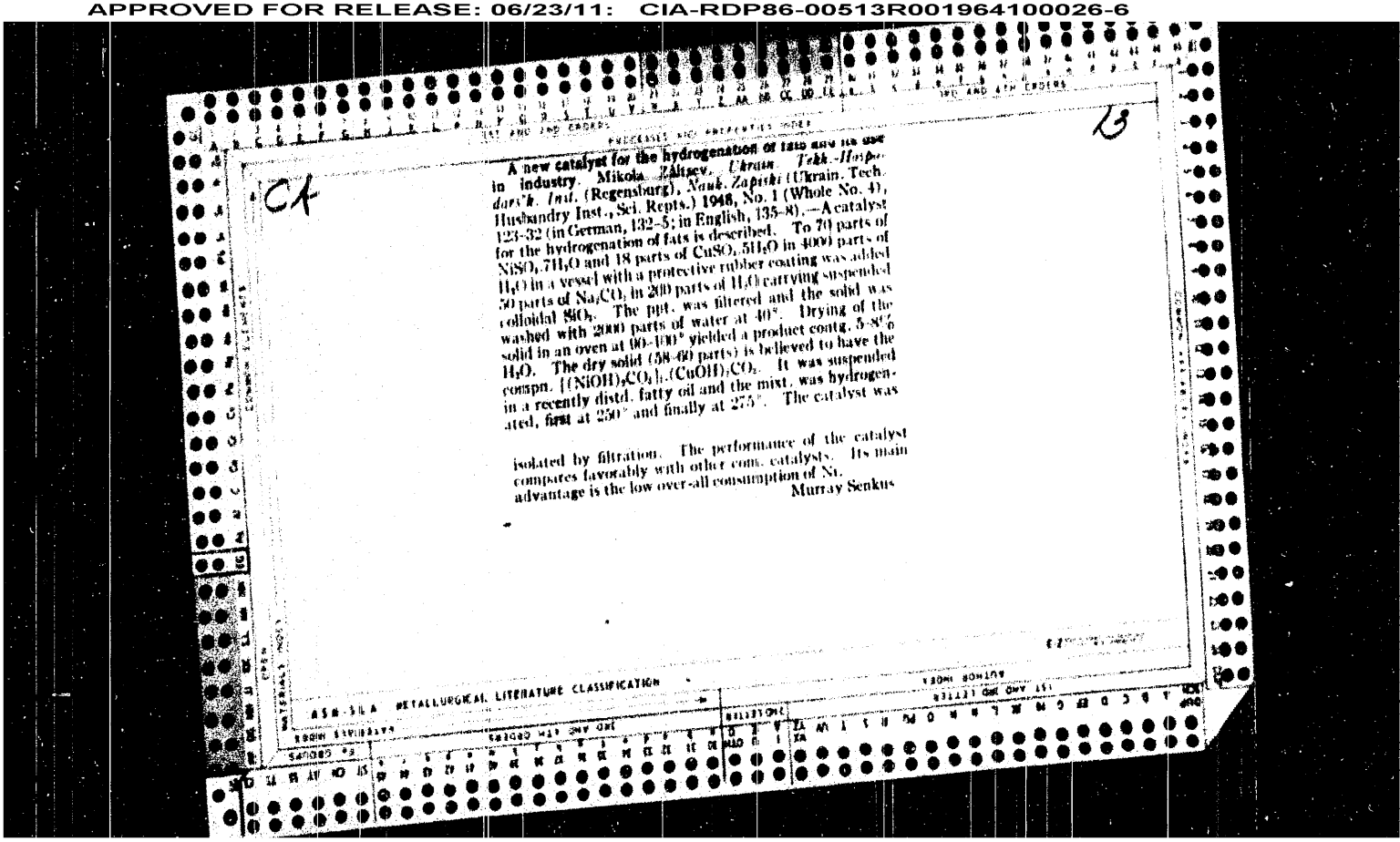
Waste in financing the construction of oil and gas wells.
Fin.SSSR 20 no.12:52-54 D '59. (MIRA 12:12)

1. Nachal'nik planovogo otdela Chelekenskoy kontory bureniya, Turkmenskaya SSR.
(Cheleken--Oil well drilling--Finance)
(Cheleken--Gas, Natural--Finance)

ZAYTSEV, M.

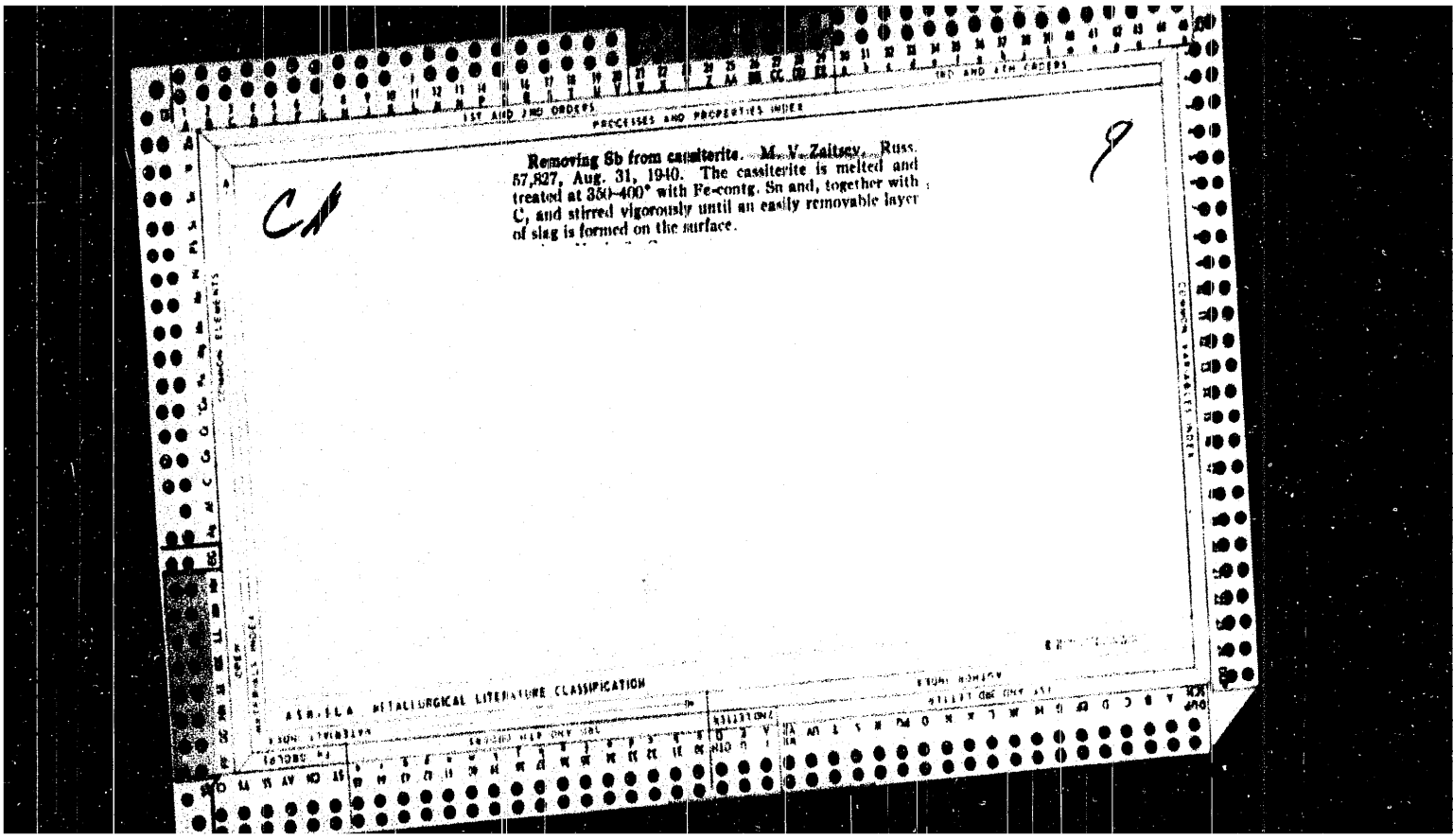
Don't allow waste of casing pipes. Neftianik 6 no.4:25 Ap '61. (MIRA 14:8)

(Oil well casing)



A new catalyst for the hydrogenation of fats and its use in industry. Mikola Zaitsev. *Ukrain. Tekh.-Hospodarch. Inst.* (Regensburg), *Nauk. Zapiski* (Ukrain. Tech.-Husbandry Inst., Sci. Repts.) 1948, No. 1 (Whole No. 4), 123-32 (in German, 132-5; in English, 135-8).—A catalyst for the hydrogenation of fats is described. To 70 parts of $NiSO_4.7H_2O$ and 18 parts of $CuSO_4.5H_2O$ in 4000 parts of H_2O in a vessel with a protective rubber coating was added 50 parts of Na_2CO_3 in 200 parts of H_2O carrying suspended colloidal SiO_2. The ppt. was filtered and the solid was washed with 2000 parts of water at 40°. Drying of the solid in an oven at 90–100° yielded a product contg. 5–8% H_2O. The dry solid (58–60 parts) is believed to have the compn. $[(NiOH)_2CO_3]_{10}(CuOH)_2CO_3$. It was suspended in a recently distd. fatty oil and the mixt. was hydrogenated, first at 250° and finally at 275°. The catalyst was isolated by filtration. The performance of the catalyst compares favorably with other com. catalysts. Its main advantage is the low over-all consumption of Ni.

Murray Senkus



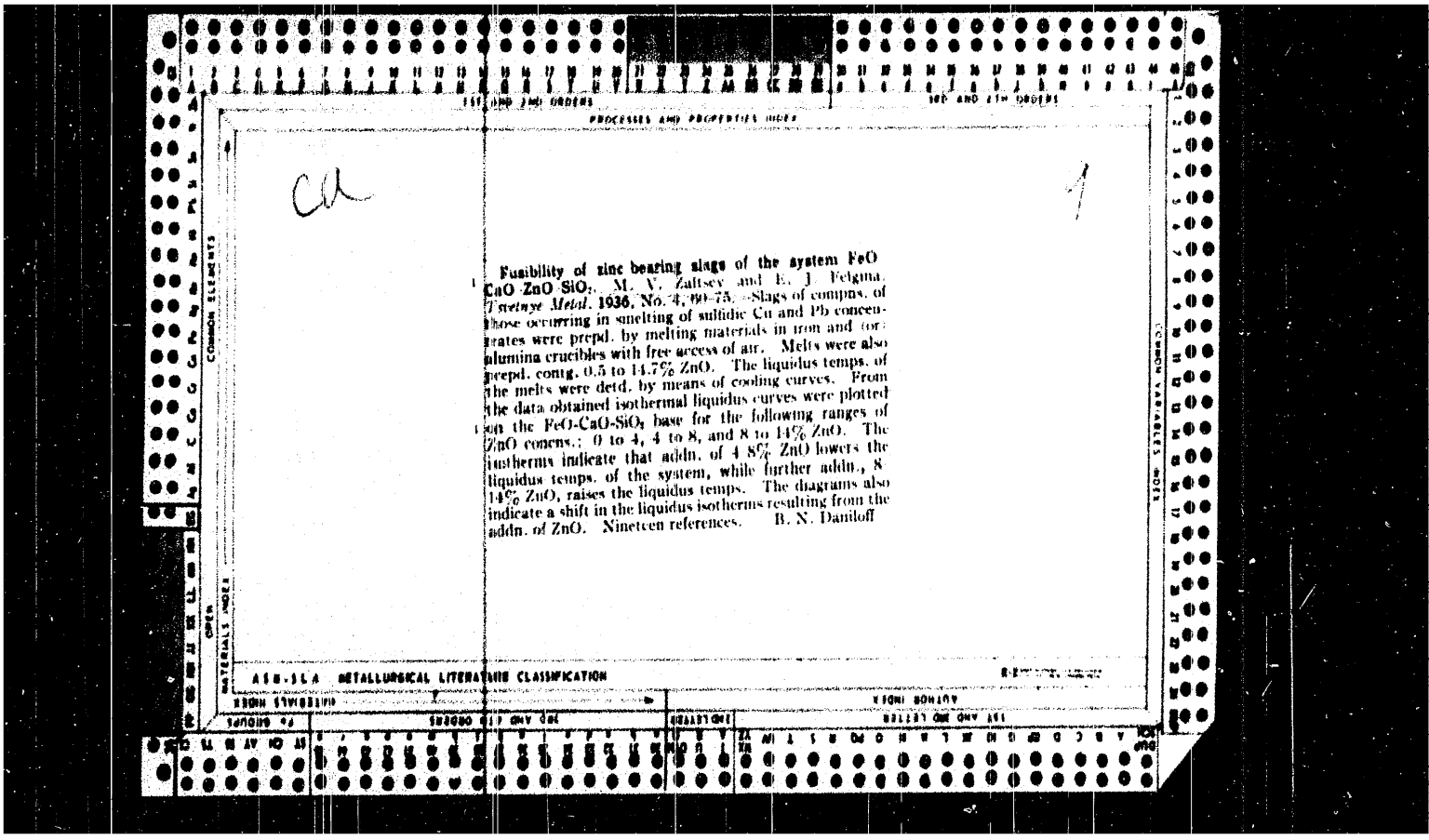
APPROVED FOR RELEASE: 06/23/11: CIA-RDP86-00513R001964100026-6

ZAYTSEV, M. 600

USSR (600)

Candidate of Technical Science - "A Letter Concerned with D. I. Derkachev's Review of M. A. Dulinov's Article 'The Production of Zinc by Electrolytic Methods' (Tsventnyye Metally, No 12, 1938)". Tsvet. Met., 14, No 4-5, 1939

Report U-1506, 4 Oct 1951



CU

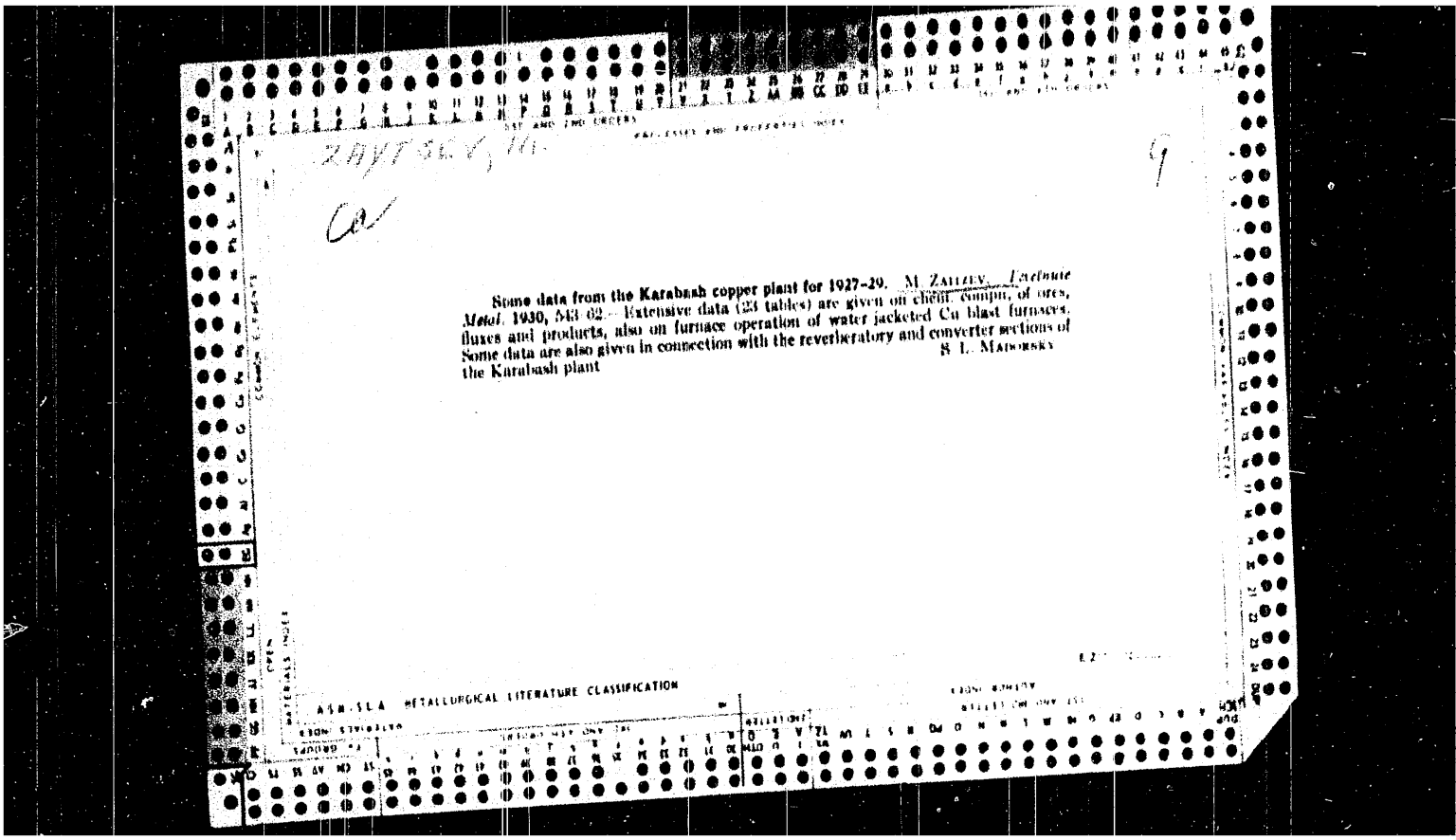
1

Fusibility of zinc bearing slags of the system FeO CaO ZnO SiO_2. M. V. Zaltsev and E. J. Felgina. *Tsvetnye Metal.* **1936**, No. 4, 69–75. Slags of compns. of those occurring in smelting of sulfidic Cu and Pb concentrates were prepd. by melting materials in iron and (or) alumina crucibles with free access of air. Melts were also prepd. contg. 0.5 to 14.7% ZnO. The liquidus temps. of the melts were detd. by means of cooling curves. From the data obtained isothermal liquidus curves were plotted on the FeO-CaO-SiO_2 base for the following ranges of ZnO concns.: 0 to 4, 4 to 8, and 8 to 14% ZnO. The isotherms indicate that addn. of 4–8% ZnO lowers the liquidus temps. of the system, while further addn., 8–14% ZnO, raises the liquidus temps. The diagrams also indicate a shift in the liquidus isotherms resulting from the addn. of ZnO. Nineteen references. B. N. Daniloff

ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION

Rapid analysis of cement. M. I. Z[illegible] [illegible] modification of
Lab. 3, 402-4(1934).—By the proposed modification of
the Tananaev method, the detn. can be made within 1
day in 1 sample and with more accurate results. The
cement can be decompd. with the liberation of SiO_2 either
with HNO_3 (d. 1.3 or 1.4) or with HCl (d. 1.19). Mix
1 g. of cement with 1 g. NH_4Cl (or with NH_4NO_3, if
HNO_3 is used), add 10 cc. HCl, digest 5-10 min. on a
water bath, decant, wash, filter (prep. the filter by treat-
ing with hot H_2O), wash free from chlorides and det.
SiO_2 as usual. Dil. the filtrate to 250 cc. for the following
detns. For detn. of the sum of Al and Fe, withdraw
50 cc. of the soln., heat to 60-70°, add methyl red, neu-
tralize with concd. NH_3, heat 3-5 min., filter off $Al(OH)_3$ +
$Fe(OH)_3$ and wash. For detn. of sulfate, add 1 g. $(NH_4)_2$-
CO_3 to 50 cc. of the soln., filter off the ppt., wash with
H_2O, acidify with HCl and ppt. with $BaCl_2$ as usual.
Det. Ca in the filtrate from $Al(OH)_3$ + $Fe(OH)_3$ with
methyl red, $(CO_2H)_2$ and NH_3 as usual. For detn. of
Mg, evap. the filtrate from CaC_2O_4 to 70-100 cc., boil,
add 10 cc. CH_2O soln., digest 15 min. on a water bath,
add phenolphthalein soln. and 10-20% NaOH to a red
color, after a change of color add 1-2 cc. CH_2O, repeat
this procedure until the soln. fails to give color and odor
of NH_3, digest 10-15 min. on a water bath, filter off
$Mg(OH)_2$, wash free from alkali (litmus paper) and ignite
to MgO. For colorimetric detn. of Fe, add to 50 cc. of
the soln. 5 cc. of NH_4CNS soln. (10 g. per 1.) and
compare with a mixt. of 5 cc. of the NH_4CNS soln. and
50 cc. of the prepd. soln. (40 cc. of concd. HCl and 4 g.
NH_4Cl in 1 l. H_2O) with gradual addn. of titrated soln.
of $FeCl_3$. Det. Al by difference. Det. the loss in wt.
by igniting 1 g. of cement for 30 min. The complete an-
alysis is accurate within 0.08-0.11%. C. B.

ASM-SLA METALLURGICAL LITERATURE



Some data from the Karabash copper plant for 1927–29. M. ZAITZEV. *Tsvetnie Metal.* 1930, 543–62.—Extensive data (23 tables) are given on chem. compn. of ores, fluxes and products, also on furnace operation of water jacketed Cu blast furnaces. Some data are also given in connection with the reverberatory and converter sections of the Karabash plant

S. L. MADORSKY

ZAYTSEV, L.Ye., mekhanik-naladchik defektoskopov (g.Leningrad)

How to recondition prism attachments of the defectoscope.
Put' i put.khoz. 5 no.7:27 Jl '61. (MIRA 14:8)
(Railroads--Equipment and supplies)

KANTSEL', Ya.O., inzh.; BELYANCHIKOV, V.N., inzh.; NOVIKOV, I.V., inzh.; ZAYTSEV, L.Ye., inzh.; AKIL'YEV, S.A., inzh.; BELKIN, V.A., inzh.; POCHKINA, L.A., inzh.; VASIL'YEV, O.A., inzh.; KUZ'MINYKH, A.A., red.izd-va; SHIBKOVA, R.Ye., tekhn. red.

[Service life of parts of excavating, construction and road machinery; a reference catalog] Sroki sluzhby detalei ekskavatorov, stroitel'nykh i dorozhnykh mashin; katalog-spravochnik. Izd.2., perer. i dop. Moskva, Goslesbumizdat. Pt.1.[Excavating machinery and hoisting equipment; cranes, loaders, winches, and elevators] Ekskavatory i pod"emno-transportnoe oborudovanie; krany, pogruzchiki, lebedki, elevatory. 1963. 342 p. (MIRA 17:3)

1. Russia (1917- R.S.F.S.R.) Glavnoye upravleniye po snabzheniyu i sbytu produktsii tyazhelogo, transportnogo i stroitel'no-dorozhnogo mashinostroyeniya. Tekhnicheskaya kontora "Stroityazhmashzapchast'." Konstruktorskoye byuro.

ZAYTSEV, L.Ye., mekhanik-naladchik (g.Leningrad)

Transistorized flaw detector. Put' i put.khoz. 4 no.10:33 O '60. (MIRA 13:9)
(Transistor) (Railroads--Rails--Testing)

BELYANCHIKOV, V.N., inzh.; NOVIKOV, I.V., inzh.; ZAYTSEV, L.Ye., inzh.; AKIL'YEV, S.A., inzh.; BELKIN, V A., inzh.; POCHKINA, L.A., inzh.; VASIL'YEV, O.A., inzh.; Prinimali uchastiye: KOPEYKINA, O.P.; SMIRNOVA, A.N.; BELKINA, S.S.; SHILINA, Ye.I.; LAGUNOV, Ye.N.; REZNIK, S.Z.; BRISMAN, B.I.; KUZ'MINYKH, A.A., red.izd-va; SHIBKOVA, R.Ye., tekhn. red.

[Operational life of parts of excavating, construction, and road machinery; a reference catalog] Sroki sluzhby detalei ekskavatorov, stroitel'nykh i dorozhnykh mashin, katalog spravochnik. Izd.2., perer. i dop. Moskva, Goslesbumizdat. Pt.2. [Road, construction machinery, and machinery for manufacturing building materials] Dorozhnye, stroitel'nye mashiny i mashiny dlia proizvodstva stroitel'nykh materialov. 1963. 306 p. (MIRA 17:4)

1. "Stroitiyazhmashzapchast'," Tekhnicheskaya kontora. Konstruktorskoye byuro.

RYAKHIN, V.A., kand.tekhn.nauk; ZAYTSEV, L.V., inzh.; SHIFRIN, T.A., inzh.

Effectiveness of the specialized manufacture of standardized series of excavators and cranes. Stroi. i dor. mash. 10 no.7:1-3 Jl '65. (MIRA 18:8)

ANUCHKIN, N.N., inzh.; GARBUZOV, Z.Ye., inzh.; ZAYTSEV, L.V., inzh.; KULIKOV, A.P., inzh.; MIKHAYLOV, P.M., inzh.

E-155 and E-156 building excavators with caterpillar drive or with pneumatic tires. Stroi. i dor. mashinostr. 5 no.5:5-9 My '60. (MIRA 14:4)

(Excavating machinery)

CHERNIKOV, P.V.; ZAYTSEV, L.S.; ZHAVORONKOV, V.N.

Attachment for grinding and lapping cutting tools along the tail surfaces and radii. Stan.i instr. 34 no.3:43-44 Mr '63. (MIRA 16:5)

(Grinding machines—Attachments)

ZAYTSEV, L. S.; SITDYKOV, S. SH.; ZHURLOV, N. L.

Geography and Geology

Requirements of industry as to the quality of mineral raw materials. Handbook for geologists--Moskva, Gos. izd-vo geologicheskoi lit-ry Komiteta po delam geologii pri SNK SSSR, No. 44, Arsenic, 1947.

9. Monthly List of Russian Accessions, Library of Congress, October 1953, Uncl.

KURMAN, I.M.; MEL'NITSKIY, V.V.; ZAYTSEV, L.S.; MEL'NITSKAYA, Ye.F.; ORLOVA, Ye.V.; Prinimali uchastiye: OKNINA, V.A.; KORYAKOV, G.Ya.; DARAGAN, V.Kh., red.; SHUGIN, A.A., red.; AFANAS'YEVA, Yu.N., red. izd-va; IYERUSALIMSKAYA, Ye.S., tekhn. red.

[Prospecting for boron] Poiski i razvedka bornogo syr'ia. Pod obshchei red. V.Kh.Daragana, I.M.Kurmana i A.A.Shugina. Moskva, Gos. nauchno-tekhn. izd-vo lit-ry po geol. i okhrane nedr, 1960. 102 p. (MIRA 14:7).

1. Moscow. Vsesoyuznyy nauchno-issledovatel'skiy institut mineral'nogo syr'ya. 2. Gosudarstvennyy nauchno-issledovatel'skiy institut gorno-khimicheskogo syr'ya Gosudarstvennogo komiteta Soveta Ministrov SSSR (for Mel'nitskaya, Okina, Koryakov). 3. Vsesoyuznyy nauchno-issledovatel'skiy institut mineral'nogo syr'ya Ministerstva geologii i okhrany nedr (for Orlova). (Boron)

L 52185-66 EWT(d)/EWT(m)/EWP(v)/EWP(t)/EWP(k)/EWP(h)/EWP(b)/EWP(l)/EWA(h) JD

ACC NR: AP5022038 SOURCE CODE: UR/0286/65/000/014/0105/0105

AUTHORS: Chernikov, P. V.; Zaytsev, L. S.; Krivdin, B. M.

ORG: none

TITLE: A method for working with a hard alloy tool bit. Class 49, No. 173092

SOURCE: Byulleten' izobreteniy i tovarnykh znakov, no. 14, 1965, 105

TOPIC TAGS: mechanical metal removal, metalworking, metal cutting, cutting tool, metal cutting machine tool

ABSTRACT: This Author Certificate presents a method for cutting with a hard alloy tool bit. To increase the wear resistance of the tool bit, the work is conducted with a cyclically altered longitudinal feed changing from detail to detail or during working of the same detail. Thus, the first detail may be worked at a feed 15-25% below the optimal, the second detail at the optimal feed, and the third at a feed 15-25% above optimal. After this, the cycle is repeated in the same or in some other order.

SUB CODE: IE/ SUBM DATE: 03May63/ ORIG REF: 000/ OTH REF: 000

Card 1/1

S/081/61/000/010/008/029
B117/B207

AUTHORS: Balezin, S. A., Beskov, S. D., Zaytsev, L. P.

TITLE: Chemical surface purification of metal products by the jet method

PERIODICAL: Referativnyy zhurnal. Khimiya, no. 10, 1961, 285, abstract 10M194 (10I194) ("/Uch. zap./ Mosk. gos. ped. in-ta im. V. I. Lenina", no. 146, 1960, 41-61)

TEXT: It is pointed out that the jet method for purifying metal surfaces, which combines the chemical and mechanical effects of the caustic solution, reduces the time necessary to purify metal products to between one-tenth and one-fifteenth. Combined jet and caustic processes are recommended for brass and steel products. [Abstracter's note: Complete translation.]

Card 1/1

ZAYTSEV, L.P.

Resistance of the ground to cutting by the rotary working part of a canal excavator. Vop. gidr. no.3:133-140 '61. (MIRA 15:4)
(Excavating machinery)

ZAYTSEV, L. P.

ZAYTSEV, L. P. --"The Effect of the Closeness of Coiling of Carrier Cables on Its Stability in Transverse Loads." Sub 30 Jun 52, Central Sci Res Inst of Technology and Machine Building (TsNIITMash) (Dissertation for the Degree of Candidate in the Technical Science)

SO: VECHERNAYA MOSKVA, JANUARY-DECEMBER 1952

SADOVSKIY, M.A.; ZAYTSEV, L.P.

Structure and development of the earth as a complex problem. Vest. AN SSSR 32 no.11:53-57 N '62. (MIRA 15:11)

1. Chlen-korrespondent AN SSSR (for Sadovskiy).
(Earth--Internal structure)

ACCESSION NR: AP4025909

of reports were devoted to summarizing data on the geographical exploration of the Caucasus and of the Black Sea basin by seismic, gravimetric, and by other means. A five-year plan of geological-geophysical-geochemical exploration has been drafted. It consists of 15 topics, names of the potential investigators, and completion dates. One of the main assignments is the drafting of geological, tectonic, structural, paleontological, paleotectonic, and paleostructural summaries, maps, and profiles. All maps are to be drawn to the same scale. Information use is to be obtained from studies of refracted waves, magneto-telluric soundings, and other geophysical methods. The importance of recording seismic phenomena was stressed. It was recommended that laboratories for the study of physical and geothermal properties of rocks be established. Drilling of deep holes was also suggested. The Ukrainian Academy of Sciences was asked to prepare a similar program for the Crimea. A tentative date for discussion of preliminary results from the Caucasus region was set for the end of 1965.

ASSOCIATION: none

SUBMITTED: 00 DATE ACQ: 08Apr64 ENCL: 00

SUB CODE: AS NO REF SOV: 000 OTHER: 000

Card 2/2

S/0030/64/000/002/0118/0119

ACCESSION NR: AP4025909

AUTHOR: Zaytsev, L. P. (Candidate of physico-mathematical sciences)

TITLE: Investigation of the crust and outer mantle of the earth (Mobile Session of the Science Council)

SOURCE: AN SSSR. Vestnik, no. 2, 1964, 118-119

TOPIC TAGS: earth crust, mantle, Caucasus, Crimea, geophysics, tectonics, mapping

ABSTRACT: During October 31-November 3, 1963 there took place in Tbilisi a session of the Science Council for evaluating the present status of information on the geological structure and evolution of the Caucasus and the adjacent seas. The Council also worked out a program of explorations in this area and organized a regional science council. Over 150 representatives of scientific research institutions, colleges, and industrial organizations participated. At the plenary sessions papers were discussed dealing with a detailed analysis of the current data on the tectonics of the Caucasus, on the evolution of the structural elements of the earth's crust, on the distribution of formations in time and space, and on the physical properties of rocks. Separate aspects of the geological structure in the Caucasus and adjacent territories were dealt with in detail. A large number

Card 1/2

ZAYTSEV, I.P., kand.fiz.-matem.nauk

Studies on the earth's crust and upper mantle; out-of-town session of the Scientific Council. Vest. AN SSSR 34 no. 2: 138-139 F '64. (MIRA 17:8)

ZAYTSEV, L.P.; PARKHOMENKO, I.S.

Nondispersive continuous head waves in the case of a thin layer lying on a half-space. Izv. AN SSSR Ser. geofiz. no.8:1149-1161 Ag '64 (MIRA 17:8)

1. Institut fiziki Zemli AN SSSR.

VINOGRADOV, A.P., akademik; SADOVSKIY, M.A.; AKHMEDSAFIN, U.M., akademik; GERASIMOV, I.P., akademik; YANSHIN, A.L., akademik; SHCHERBAKOV, D.I., akademik; PEYVE, A.V., akademik; ZAYTSEV, L.P., kand.fiz.-matem.nauk; OVCHINNIKOV, I.M.

Development of earth sciences in Central Asia and Kazakhstan; results of the out-of-town session of the Department of Earth Sciences. Vest.AN SSSR 35 no.3:128-150 Mr '65. (MIRA 18:4)

1. Chlen-korrespondent AN SSSR (for Sadovskiy). 2. AN Kazakhskoy SSR (for Akhmedsafin).

ZAYTSEV, L.P.

General session of the Department of Earth Sciences [illegible]
AN SSSR. Ser. geol. 29 no.9:118-119 S '64.
(MIRA 17:11)

ZAYTSEV, L.P.

Selecting the shape of the blades of the working elements of continuous-action canal cleaners. Vop. gidrotekh. no.15:45-56 '63. (MIRA 18:2)

L 48340-65
ACCESSION NR: AP5009498

12

related to the study of seismic processes. The session in Ashkhabad was reported by L. P. Zaitsev, candidate of physico-mathematical sciences. It started with the paper of M. A. Sadovskiy who described the problems of earthquake [illegible]ecasting. K. K. Mashurykov and A. A. Dzabayev presented new information on the deep structure of Western Turkmenistan. L. N. Smirnov described the general structural history of the Alpian-Himalayan mobile belt and the adjacent transition zone. I. M. Ovchinnikov reported to the Presidium the results of the Tashkent session at which V. V. Belousov presented the paper "Earth crust and the upper mantle of continents." A. S. Ushlonskiy discussed the origin of natural sulfur. A. A. Malakhov described the metallogenic peculiarities and types of the Uzbek ores. N. B. Vol'fson, V. G. Gar'kovets, and A. G. Khvalovskiy analyzed the application of geochemical and geophysical methods to exploration. The Presidium of the Academy of Sciences USSR approved the work of the Department of Earth Sciences, presented its resolutions, and expressed its gratitude to Academician A. P. Vinogradov, the secretary of the Department, and to the members of the organisation committee.

ASSOCIATION: none

SUBMITTED: 00 ENCL: 00 SUB CODE: ES
NO REF SOV: 000 OTHER: 000
Card 5/5

eolian sands, and deltaic deposits of this region. M. I. Varentsov described oil prospects in southeastern Kazakhstan. This topic was discussed in greater detail in the paper by P. Ye. Avrov, M. I. Varentsov, V. I. Ditmar and A. B. Li. Geophysical research in Kazakhstan was described by A. T. Andreyev, M. D. Morozov, V. V. Prodava, and V. I. Gol'dshmit. The session on the problems of ore genesis was held in Frunze, and its results were reported by Academician D. I. Shcherbakov, F. N. Shakhov and A. I. Tugarinov discussed the application of new precise methods in geology. V. T. Surgay reported on his study of regional geochemistry in the accumulation and localization of mercury ore. M. N. Al'tgauzen criticized the paper of F. I. Vol'fson on the theory of formation and distribution of endogene ore deposits. V. I. Knauf and Ye. I. Zubtsov presented a structural map of northern Kirghiziya. A. D. Ronov spoke on the origin of ores in sedimentary and extrusive rocks of Tyan'-Shan'. A. U. Abdullayev formulated principal conditions for bauxite formation. G. I. Pavydov discussed the polymetallic region of Moldo-tau. A Dzhumaliyev spoke on the structure of ores in Dzhergalan. Academician A. V. Peyve reported the results of the Dushanbe session at which Academician D. S. Korzhinskiy discussed post-magmatic processes. Yu. V. Riznichenko spoke on seismic activity and the energy of earthquakes. B. B. Baratov and S. A. Zakharov delineated the possible connection between geochemical processes and following Zakharov spoke on seismic phenomena. V. M. Gaiskiy discussed problems

APPROVED FOR RELEASE: 06/23/11: CIA-RDP86-00513R001964100026-6

L 48340-65
ACCESSION NR: AP5009498

Central Asia were discussed at three interrelated geographic symposia held in Tashkent, Ashkhabad, and at Alma-Ata. The first dealt with the geographical aspects of irrigation in Central Asia; the second with the problems of desert conquest and the building of the Kara Kum canal; the third with the regulation of glacier melting in the mountains of Central Asia. Of special interest was the discussion of the future fate of the Aral Sea. Two opposite opinions were presented: V. L. Shul'ts stated that increased use of river waters for irrigation will cause a complete drying up of the sea. L. V. Dunin-Barkovskiy drew attention to the recent rise of the water level in the sea, explaining it by the peculiarities of water transpiration by different types of vegetation. F. F. Davitay however, explained the paradox by the water supply at the river sources at the Pamir-Altai and Tyan'-Shan' divide. The results of the three sessions were summarized by Academician I. P. Gerasimov. Academician A. L. Yanshin reported on the main session of the Earth Sciences Department in Alma-Ata. R. A. Borukayev, A. K. Kayupov, G. F. Lyapichev, and L. A. Miroshnichenko reported on the structural and metallogenic mapping of eastern Kazakhstan. G. B. Zhilinskiy discussed problems in theoretical and experimental mineralogy. A. K. Kayupov spoke on the relation of endogene metallogeny to the deep structure of the crust. I. P. Novoshatskiy reported on iron and manganese deposits in Kazakhstan. Zh. S. Sadykov made a quantitative evaluation of artesian waters in the artesian basins,

Card 3/5

L 49340-65

ACCESSION NR: AP5009498

9

State Geological Committee SSSR. Establishing direct relations with the above academies was the immediate goal of the trip. The symposium on seismology (held in Tashkent) was reported on by M. A. Sadovskiy. The problems in this field were divided into three groups: 1) internal structure of the earth's crust and sedimentary mantle revealed by data obtained by different branches of the geoscience; 2) relation among different earthquake sources; 3) protection of the population and national economy from earthquake damage. It was recommended that a special service dealing with the earthquake forecasts be organized. Achievements of the symposium on hydrology were reported by U. M. Akhmedsafin. B. I. Kudelin (Moscow University) presented a paper on the drainage and renewal of ground water. U. M. Akhmedsafin spoke on the study of artesian basins in Kazakhstan. N. A. Konesarin (Uzbek Institute of Hydrology and Engineering Geology) discussed the principal problems of theoretical hydrology. Zh. S. Sadykov (Academy of Sciences, Kazakh SSR) spoke on the seepage effect of underground brines and its meaning in the interpretation of ore-formation processes. O. A. Mavlyanov presented an engineering-geological map of the arid Uzbekistan. V. G. Gafurov discussed irrigation principles and the forecast of hydrogeodynamic processes taking place in the irrigated areas. A. L. Yanshin spoke on utilization of artesian waters. N. A. Tsytovich recommended the organization of a specialized service for the problems of ground waters. The geographical problems in

Card 2/5

L 48[illegible]-65 EWT(l)/FCC/EEC(t)/EWA(h) Pe-[illegible] b/Pi-4 GW

ACCESSION NR: AP5009498 S/0030/65/000/003/0128/0150

AUTHORS: Vinogradov, A. P. (Academician); Gerasimov, I. P. (Academician); Yanshin, A. L. (Academician); Shcherbakov, D. I. (Academician); Povarennykh, A. S. (Academician); Sadovskiy, M. A. (Corresponding member AN SSSR); Akhmedsafin, U. M. (Academician AN KazSSR); Zaytsev, L. P. (Candidate of physico-mathematical sciences); Ovchinnikov, I. M.

TITLE: Development of earth sciences in Central Asia and in Kazakhstan (Results of a field trip of the Department of Earth Sciences)

SOURCE: AN SSSR. Vestnik, no. 3, 1965, 128-150

TOPIC TAGS: geoactivity, geochemistry, geochronological problem, geochronology, geodesy, geography, geological survey, geology, geomagnetism, geophysical prospecting, geophysical research, geophysics

ABSTRACT: The Presidium of the Academy of Sciences, SSSR heard the report of academician A. P. Vinogradov, secretary of the Department of Earth Sciences, at the session held on January 15. The speaker presented the results of the department's trip (Oct. 1-11, 1964), organized by the Academies of Sciences of Kazakhstan, Kirghiziya, Tadzhikistan, Turkmenistan, and Uzbekistan, and the

Card 1/5

ZAYTSEV, L.P.

General Conference of the Department of Earth Sciences of the Academy of Sciences of the U.S.S.R. Izv. AN SSSR. Ser. geol. 29 no.11:119-120 N '64. (MIRA 17:12)

ZAYTSEV, L.P.; FILITMAN, L.M.

Elastic waves induced by a tangential discontinuity crack on the interface of two elastic media. Izv. AN SSSR. Fiz. zem. no.11: 13-19 '65. (MIRA 18:12)

1. Institut fiziki Zemli AN SSSR. Submitted May 11, 1965.

ACCESSION NR: AP4043907

ASSOCIATION: Institut fiziki Zemli, Akademiya nauk SSSR (Institute of Geophysics, SSSR Academy of Sciences)

SUBMITTED: 24Jul63

ENCL: 00

SUB CODE: ES

NO REF SOV: 011

OTHER: 000

Card 3/3

ACCESSION NR: AP4043907

propagating with the velocity of S-waves in a half-space has been recorded experimentally on two-dimensional models. Certain dynamic peculiarities of the degenerate head waves are analyzed: they are essentially low-frequency in comparison with a direct P-wave and their amplitude is comparable to the amplitudes of a direct P-wave and a Rayleigh wave. Comparison of theoretical computations and experimental data shows good agreement between velocity of propagation and the predominant period for a degenerate head wave propagating with the velocity of S-waves. In the models it was possible to record a "slow" interfering degenerate head wave, that is, a wave propagating in the layer with the velocity of transverse waves in the underlying half-space. This wave was detected clearly when there was a certain optimal relation between the thickness of the layer and wavelength ($h/\lambda = 0.2$). In this case the thickness of the layer in comparison with wavelength was such that there was an interference effect and the amplitude of the "slow" degenerate head wave increased sharply in a certain frequency range. In the case of other values of h/λ (0.3 and 0.4) no "slow" wave was recorded on the seismograms. This apparently can be attributed to the fact that the interference effect is manifested only in a narrow range of h/λ values. The theoretical and observed travel-time curves of the "slow" wave virtually coincide. The theoretical value of 7.28 kc/s agrees well with the experimental estimate of the dominant frequency of this wave, which is 6.9 ± 0.3 kc/s. No "rapid" interfering degenerate head wave was observed in the models. Orig. art. has: 22 formulas and 7 figures.

Card 2/3

ACCESSION NR: AP4043907 S/0049/64/000/008/1149/1161

AUTHOR: Zaytsev, L. P., Parkhomenko, I. S.

TITLE: Degenerate head waves in the case of a thin layer lying on a half-space

SOURCE: AN SSSR. Izvestiya. Seriya geofizicheskaya, no. 8, 1964, 1149-1161

TOPIC TAGS: seismology, seismic head wave, seismic wave, seismic wave propagation, seismic modeling, geophysics

ABSTRACT: This paper is a continuation of a study of degenerate head waves which was undertaken earlier by one of the authors (L. P. Zaytsev, Izv. AN SSSR, Ser. geofiz., No. 8, 1960; O golovnoy volne poverkhnostnogo tipa, Voprosy* dinamicheskoy teorii rasprostraneniya seysmicheskikh voln, No. 3, Izd-vo LGU, 1959). These theoretical studies discussed the axially symmetrical problem of forced oscillations in a medium consisting of two liquid and two elastic half-spaces with a plane discontinuity. A new form of oscillations called a degenerate head wave was defined. This new paper is a theoretical and experimental study of degenerate head waves on models; these waves are associated with a thin layer of a high velocity lying on a half-space. It was found that in a thin layer there are two degenerate head waves which are propagated with the velocities of longitudinal P- and transverse S-waves in the half-space. For the first time, an interfering degenerate head wave

Card 1/3

sational problems. It is hoped that more attention will be given in future to purely scientific matters.

Card 3/3

sures and geothermy, geochronological methods, experimental studies of internal processes, geomagnetism, composite studies of contemporary movements, composite studies of volcanology, deep seismic sounding and magneto-telluric methods of studying the earth's interior. The first session of the Council took place on February 19/20 and was concerned with the coordination of plans of the large number of institutes for which the Council is responsible. The second session took place towards the end of May and its main purpose was to discuss scientific projects for the next few years, including 1963. In some cases it was decided to hold special coordinating conferences (paleontology, neotectonics, geomorphology and exogenetic processes, the problem of the tsunamis, physicochemical mineralogy and petrology at large depths in the earth's crust). Among the most important meetings which took place in 1962 were the plenary session of the Council on the problem of the forecasting of earthquakes, a seminar on the physical properties of rocks under high pressures, a symposium on the petrochemistry of volcanic rocks and a conference on paleomagnetism. It is noted that the first period of activity of the Council was largely concerned with organi-

S/030/62/000/011/001/005
D218/D308

AUTHOR: Sadovskiy, M.A., Corresponding Member of the USSR, and Zaytsev, L.P.

TITLE: The structure and evolution of the earth as a composite problem

PERIODICAL: Akademiya nauk SSSR. Vestnik. no. 11, 1962, 53 - 57

TEXT: This paper reports the formation of a Scientific Council concerned with the structure and evolution of the earth. It was decided that the coordination of studies of the atmosphere and of the sea will be outside the terms of reference of this Council. On the other hand the Council will include two earlier organizations, namely, the Council for the methods of geophysical prospecting and the Council for seismology. Other sections which come under this new Council are concerned with the earth's crust and mantle and the internal structure of the earth. Eight methodological commissions will deal with geochemistry, high pres-

Card 1/3

ZAYTSEV, L.P.

Geophysical prospecting. Nauka i zhizn' 27 no.5:77-78 My '60.
(MIRA 13:6)

1. Uchenyy sekretar' Soveta po metodam razvedochnoy geofiziki AN SSSR.

(Prospecting--Geophysical methods)

Degenerate "Principal Waves" (golovnyye volny) in an Elastic Medium with a Discontinuity

vibration source is higher than any one of the wave velocities in the other semi-space. Strong attenuation should occur when the source or the observer moves away from the boundary between the two spaces. This attenuation should be less pronounced at low frequencies. The form of seismograms should be independent of the distance from the epicentre and this may help in identifying the degenerate principal waves in seismic observations. One can expect that observations of such waves will be useful in glaciological seismic studies where frequently there is no other way of investigating the rocks under the ice layer. The degenerate principal waves in liquids were dealt with by the present author in an earlier paper (Ref.1); their existence was first pointed out by Cerveny (Ref.2). The present paper is entirely theoretical and Figs 1-5 illustrate some points in the theoretical discussion.

Acknowledgement is made to V.I. Keylis-Borok for his advice.

There are 5 figures and 3 references: 2 Soviet and 1 Czech.

ASSOCIATION: Akademiya nauk SSSR, Institut fiziki zemli
(Physics of the Earth Institute, AS USSR)

SUBMITTED: August 11, 1959

86207

3.9300
9,9865

S/049/60/000/008/002/015
E201/E191

AUTHOR: Zaytsev, L.P.

TITLE: Degenerate "Principal Waves" (golovnyye volny) in an Elastic Medium with a Discontinuity

PERIODICAL: Izvestiya Akademii nauk SSSR, Seriya geofizicheskaya, 1960, No. 8, pp.1117-1123

TEXT: The author considers an axisymmetric problem of forced vibrations in two semi-infinite elastic spaces with a plane boundary separating them. The two spaces are taken to have different densities and are characterized by different velocities of longitudinal and transverse waves. It is assumed that the space where these velocities are higher contains a point pulse source of longitudinal vibrations. The author studies the displacement field in the semi-space containing the source of vibrations, in regions far from the wave fronts. From a general solution the author extracts several displacement fields, which he calls "degenerate principal waves" (Eq.7). These waves have a number of characteristic features and they should occur fairly frequently in seismic observations. The degenerate principal waves appear when one of the wave velocities in the semi-space with the

Card 1/2

On the head wave of surface type

22586
S/044/60/000/010/009/021
C111/C333

introduced as a surface on which the horizontal component of the displacements has an extremum value. The values of the displacements on this surface decrease exponentially under removal from the boundary of separation; this gives occasion to denote the obtained wave as a wave of surface type.

[Abstracter's note: Complete translation.]

Card 2/2

22586
S/044/60/000/010/009/021
C111/C333

9.9865
3.9800 (1019,1109)

AUTHOR: Zaytsev, L.P.

TITLE: On the head wave of surface type

PERIODICAL: Referativnyy zhurnal, Matematika, no. 10, 1960, 96, abstract 11684. (sb.: Vopr.dinamich.teorii rasprostr. seysmich.voln. Z.L.,Leningr.un-t, 1959, 378-383)

TEXT: The author considers a medium consisting of two half spaces and characterized by a wave equation. In the half space with high speed of propagation of elastic waves there is a source of the type of an expansion center. The solution of the boundary value problem is sought in the form of Fourier-Bessel integrals, the integrand of which is represented by a Mellin integral. The method of the stationary phase is used for the approximative calculation of the Mellin integrals. For the deformation of the initial contour into the stationary one there must be carried out additional circulations along sections in the complex plane. The integration in the neighborhood of the saddle points gives the potential of the reflected wave in certain approximation, the integration along sections gives a wave which is characterized by the absence of discontinuities even in high derivatives. However, the notion of the quasi wave front can be

Card 1/2

ZAYTSEV, L.P.

Meeting of the Council on Mehtods of Geophysical Prospecting devoted to problems of using nuclear methods. Izv.AN SSSR Ser.geofiz. no.10:1232-1233 O '56. (MLRA 10:1)
(Nuclear geophysics) (Prospecting)

ZAYTSEV, L. P.

USSR/Geophysics - Conference

Card 1/1 : Pub 44-10/11

Author : Kirillov, F.

Title : Chronicles. Conference of young scientists of the Geophysics Institute, Academy of Scientists of the USSR

Periodical : Izv. AN SSSR, Ser. geofiz., 495-496, Sep-Oct 1954

Abstract : May 17-20, 1954, the Geophysics Institute held a conference at which junior scientific workers participated with 18 reports; e.g. Ye. A. Lyubimova (heating of the Earth), S. L. Solov'yev (intensity of earthquakes in Turkmenia 1912-1951), S. A. Fedotov (wave hodographs), Yu. I. Vasil'yev (use of amplitude data in seismic prospecting), O. G. Shamina (elastic impulses during collapse of rocks in earthquakes), O. I. Silayeva (velocity of propagation of elastic waves in granite, marble, etc.), V. I. Tatarskiy (Propagation of waves in medium with random weak inhomogeneity of refraction coefficient), L. P. Zaytsev (reflection of waves from boundary), A. S. Chaplygina (measuring the thermobaric field in the atmosphere by statistical treatment of empiric data).

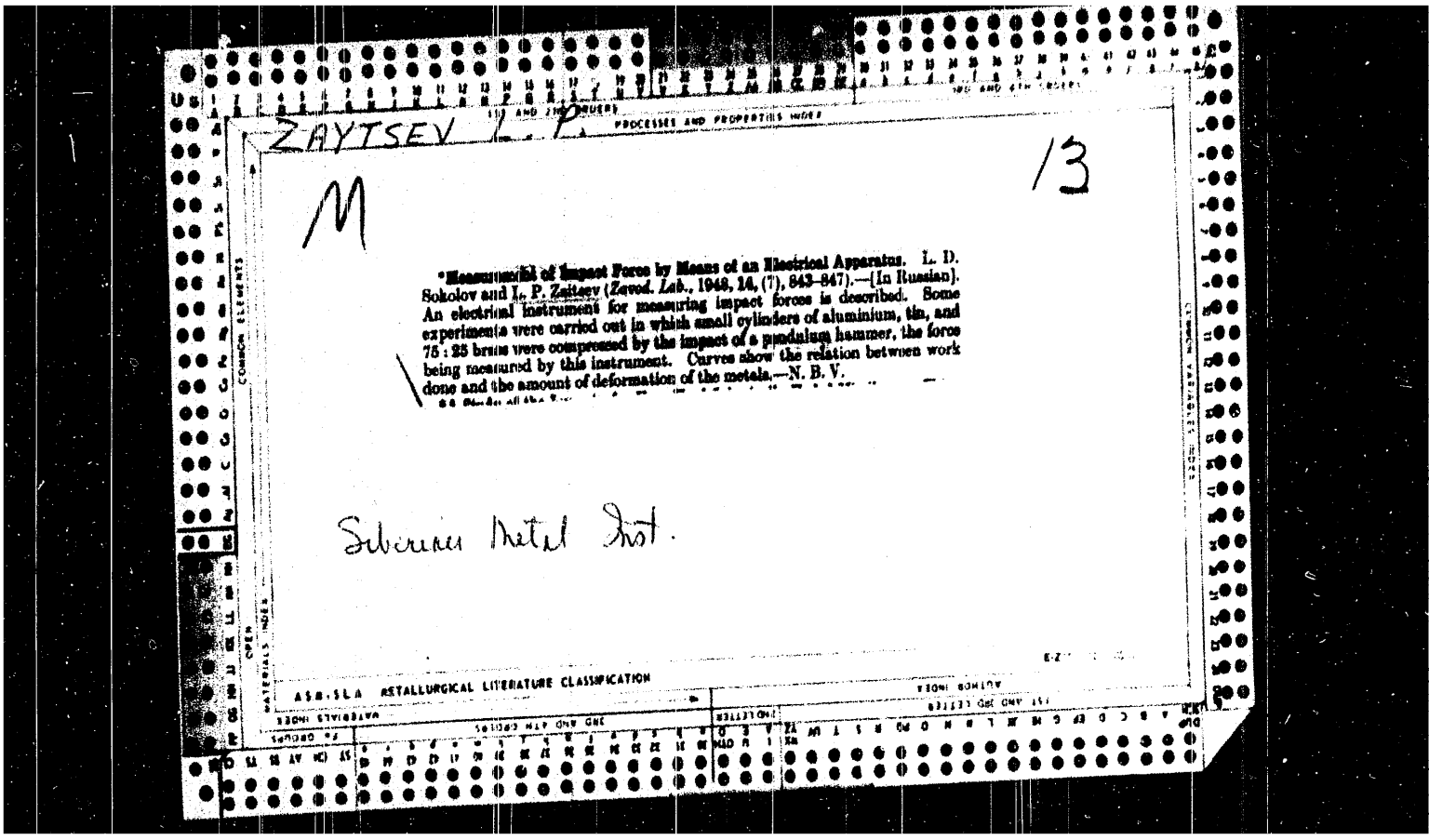
Institution : --

Submitted : --

ORLOV, D.M.; ZAYTSEV, L.P. [deceased]; LYULENKOV, I.S.; LYULENKOV, V.I.
SOKOLOV, L.D.

Efficient selection of counterweights for tower-type car dumpers.
Izv.vys.ucheb.zav.; chern.met. no.4:177-183 '61. (MIRA 14:4)

1. Sibirskiy metallurgicheskiy institut.
(Metallurgical plants--Equipment and supplies)
(Dumping appliances)



ZAYTSEV L. P.

13

M

*Measurement of Impact Force by Means of an Electrical Apparatus. L. D. Sokolov and L. P. Zaitsev (Zavod. Lab., 1948, 14, (7), 843–847).—[In Russian]. An electrical instrument for measuring impact forces is described. Some experiments were carried out in which small cylinders of aluminium, tin, and 75 : 25 brass were compressed by the impact of a pendulum hammer, the force being measured by this instrument. Curves show the relation between work done and the amount of deformation of the metals.—N. B. V.

Siberian Metal Inst.

ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION

L 09873-67

ACC NR: AP6032250

concretes with a very small amount of water or those entirely without combined water, such as heat-resistant concretes. [Authors' abstract]

SUB CODE: 06, 11/ SUBM DATE: none/ ORIG REF: 005/ OTH REF: 003/

Card 2/2

L 00273-67 EWT(l)/EWP(e)/EWT(m)/EWP(t)/ETI IJP(c) JD/RO

ACC NR: AP6032250 (A) SOURCE CODE: UR/0097/66/000/007/0032/0034

AUTHOR: Zaytsev, L. N. (Candidate of technical sciences); Lavdanskiy, P. A.; Mal'kov, V. V.; Sychev, B. S.

ORG: none

TITLE: Role of boron-containing concretes as nuclear reactor shields

SOURCE: Beton i zhelezobeton, no. 7, 1966, 32-34

TOPIC TAGS: boron, concrete, nuclear shielding, biological shielding

ABSTRACT: The addition of boron to biological shielding made from ordinary concrete reduces its thickness by 27% when the content of chemically combined water is low, and by 23% when the amount of water in the concrete is 75 kg/m^3 (with a dosage ratio of $D_1^\circ/D_2^\circ = 10^{-3}$). Maximum reduction in shielding thickness due to the addition of boron to heavy concrete for ore-filled concrete with a volumetric weight of 3200 kg/m^3 is 3% (when the ratio between the dosages is $D_1^\circ/D_2^\circ = 10^{-1}$). Thus, the addition of boron is not economically advantageous, since it results in only a small savings in concrete. Exceptions are reinforced

Card 1/2 UDC: 666.974

L 41035-66

ACC NR: AP6013725

3

of iron without the addition of hydrogen is not expedient. The authors are deeply indebted to V. S. Kiselev for his help in the calculation of the buildup factors of intermediate neutrons, and to V. P. Afanas'yev and V. M. Nazarov for making available the calibrated high-energy and intermediate-energy neutron detectors. Orig. art. has: 7 formulas, 2 figures, and 3 tables.

SUB CODE: 18/ SUBM DATE: 29Jun65/ ORIG REF: 004/ OTH REF: 001

Card 2/2

L 41035-66 EWT(m)/T

ACC NR: AP6013725 (A) SOURCE CODE: UR/0089/66/020/004/0323/0327

43
40
8

AUTHOR: Sychev, B. S.; Mal'kov, V. V.; Komochkov, M. M.; Zaytsev, L. N.

ORG: none

TITLE: The passage of high energy neutrons through iron-water mixtures

SOURCE: Atomnaya energiya, v. 20, no. 4, 1966, 323-327

TOPIC TAGS: neutron shielding, neutron diffusion, neutron detector, neutron flux

ABSTRACT: The accumulation of slow neutrons ($E < 1$ MeV) during the passage of high energy neutrons through iron and iron-water mixtures was determined experimentally and theoretically. A set of 20 mm thick 980 x 980 mm steel plates was placed into a 1000 x 1000 x 2000 mm metal container located in the synchrocyclotron chamber of the OIYaI. Concrete blocks shielded the device from scattered radiation. Neutrons were generated by 170, 250, 350, 480, and 660 MeV protons. The paper presents the characteristics of the three detectors used, the attenuation of the neutron flux generated by high energy protons, the relaxation length of high energy neutrons (for various energies of primary protons and differing concentrations of water), the buildup factors of intermediate neutrons, and the thickness of iron-water shielding of varying hydrogen content for a 200-fold attenuation. An analysis of the results shows that the use

Card 1/2 UDC: 621.039.512.45

ZAYTSEV, L.N.; KOMOCHKOV, M.M.

Optimum amount of water in the concrete shielding of a reactor. Sbor. trud. MISI no.41:33-44 '62. (MIRA 16:6)

(Shielding(Radiation))

ZAYTSEV, L.N.; KOMOCHKOV, M.M.; SYCHEV, B.S.

Attenuation of high-energy neutorms in concrete. Atom. energ. 12 no. 6:525-527 Je '62. (MIRA 15:6)
(Neutrons--Spectra) (Concrete--Testing)

ZAYTSEV, L.N., inzh.

Methods of manufacturing concrete blocks for protective walls in buildings nuclear reactors and accelerators. Bet. i zhel.-bet. 8 no.5:227-230 My '62. (MIRA 15:6)
(Concrete blocks) (Shielding (Radiation))

50 % be inversely proportional to the concrete density (Callan, Amer. Inst. 25, 17, 1953). Economic considerations show that a reduction of the required thickness cannot compensate for the rise in cost resulting from the use of heavy concretes. The concretes in question cost 28.9, 75.0, and 209.6 rubles/m^3. There are 3 figures and 3 tables.

SUBMITTED: February 10,11962

Card 2/2

36048
S/089/62/012/006/012/019
B102/B104

215250

AUTHORS: Zaytsev, L. N., Komochkov, M. M., Sychev, B. S.

TITLE: Attenuation of high-energy neutrons in concrete

PERIODICAL: Atomnaya energiya, v. 12, no. 6, 1962, 525 - 527

TEXT: The intensity losses of fast neutrons passing through special heavy concretes were studied on the synchrocyclotron of the Laboratoriya yadernykh problem Ob"yedinennogo instituta yadernykh issledovaniy (Laboratory for Nuclear Problems of the Joint Institute of Nuclear Research). Previously, such studies had been made only for ordinary concretes. Three types of concrete (densities, 2.35, 3.2, and 4.1 g/cm^3) were studied, the first being the same as that used in the synchrocyclotron. The neutron flux was determined from the C^{11} activity in the concrete. The $C^{12}(n, 2n)C^{11}$ reaction has a threshold of 20 Mev and a constant cross section in the energy range considered. At $E_n > 20$ Mev, the drop of intensity in concrete 20 - 40 cm thick was found to follow an exponential law. The authors' experiments refuted the assumption that the thickness which reduces the intensity to

Card 1/2

ACCESSION NR: AP4012262

afforded by various types of concrete. The reactor considered has a graphite moderator, a reflector, and a concrete external shield. For computation, the known absorption cross sections for fast and intermediate neutrons for the elements present in the concrete were used. It follows from the computations that the cost is minimal for a shield of an ordinary concrete with 2300 kgm/m^3. For the heavy concrete (4000 kgm/m^3) the cost is minimal when the water content is the smallest, and for a concrete with a higher density the minimum cost is when the water content is at its maximum. "The authors are grateful to A.M. Komarovskiy for interest and practical advice." Orig. art. has: 5 figures and 4 tables.

ASSOCIATION: None

SUBMITTED: 08Aug63 DATE ACQ: 14Feb64 ENCL: 00

SUB CODE: NS,BC NR REF SOV: 005 OTHER: 006

Card 2/2

ACCESSION NR: AP4012262 S/0089/64/016/001/0026/0032

AUTHORS: Broder, D.L.; Zaytsev, L.N.; Sychev, B.S.; Tugolukov, A.M.

TITLE: Effect of water content in concrete on the thickness of the reactor shield and its cost.

SOURCE: Atomnaya energiya, v.16, no.1, 1964, 26-32

TOPIC TAGS: reactor shield, biological reactor protection, reactor shield cost, reactor shield water concentration, optimal reactor protection

ABSTRACT: The purpose of the present work is to determine the economical aspect of the increasing amount of water in concrete for reactor shieldings. Increasing the water content in concrete increases its hydrogen concentration which effectively reduces the leakage of fast and intermediate neutrons because of the large cross section of hydrogen for fast and intermediate neutrons. Various types of concrete used for reactor shieldings have hydrogen concentration within the 12% range. The authors have computed the biological protection

Card 1/2

BRODER, D.L.; ZAYTSEV, L.N.; SYCHEV, B.S.; TUGOLUKOV, A.M.

Effect of the water content of concretes on the thickness and cost of reactor shielding. Atom. energ. 16 no.1:26-32 Ja '64. (MIRA 17:2)

L 1928-66

ACCESSION NR: AP5023779

sections on the boron and iron content of concretes. Orig. art. has: 3 figures and 4 tables.

ASSOCIATION: none

SUBMITTED: 20Jul64 ENCL: 00 SUB CODE: NP, MT

NO REF SOV: 009 OTHER: 005

2/2

L 1928-66 EWT(m)/EPF(n)-2/EWG(m)/EWA(h)/EWA(1) DM

ACCESSION NR: AP5023779 UR/0089/65/019/003/0303/0307
621.039.538.7

AUTHOR: Zaytsev, L. N.; Lavdanskiy, P. A.; Mal'kov, V. V.; Sychev, B. S.

TITLE: Shielding parameters of concretes

SOURCE: Atomnaya energiya, v. 19, no. 3, 1965, 303-307

TOPIC TAGS: concrete, neutron shielding, radiation shielding, neutron absorption, neutron cross section, gamma ray absorption

ABSTRACT: On the basis of literature data, a survey of the shielding parameters of concretes is given in the form of graphs and tables. The chemical composition of the basic materials used as fillers for concretes and some of their shielding parameters are tabulated. Another table lists the mass attenuation factors for γ radiation (which are the same for most of these materials except water, borate ore, boron carbide, baryta, and steel). A nomogram for the calculation of removal cross sections of fast neutrons in concretes and a table of macroscopic neutron removal cross sections of the elements included in the composition of the concretes are given. Other illustrated relationships are the variation of the inelastic interaction cross section of ultrafast neutrons with the iron content of concretes, and the dependence of thermal neutron absorption cross

1/2

ZAYTSEV, N.G. (Petrozavodsk); LEBEDEV, V.A. (Petrozavodsk)

Organization of communications between the dispatcher station and the computer center. Elektrichestvo no.10:52-54 O '64.
(MIRA 17:12)

L 06454-67 2

ACC NR: AP6024543

be made of hydrogen-containing material to reduce the effect of accumulation of intermediate neutrons in heavy materials. The authors thank Z. Tsisek and A. P. Chervatenko for help with the experiments. Orig. art. has: 3 figures and 3 formulas.

SUB CODE: 18/ SUBM DATE: 22Feb66/ ORIG REF: 005

Card 2/2

L 06454-67 EWT(m)/EWP(t)/ETI IJP(c) JD/JR

ACC NR: AT6024543 SOURCE CODE: UR/0089/66/021/001/0056/0057

AUTHOR: Zaytsev, L. N.; Komochkov, M. M.; Mal'kov, V. V.; Cherevatenko, Ye. P.; Sychev, B. S. 35 33 K5

ORG: none

TITLE: Attenuation of high-energy neutron fluxes by heterogeneous shields 19

SOURCE: Atomnaya energiya, v. 21, no. 1, 1966, 56-57

TOPIC TAGS: reactor shielding, reactor neutron flux, neutron absorption

ABSTRACT: The authors present results of experimental investigations of the distribution of neutron fluxes of varying energy groups in layered shields. The investigations were made with the OIYaI synchrocyclotron in a neutron flux obtained by bombarding a beryllium target with 660-Mev protons. The geometry of the experiment is described elsewhere (Atomnaya energiya v. 12, 525, 1962). The neutron fluxes were registered with threshold detectors of In^{115}, P^{31}, and C^{12}, which were briefly described earlier (Atomnaya energiya v. 20, 323, 1966). X ray films of individual gamma dosimeters were also used. The following shield combinations were used: iron - water, iron - heavy concrete, and water - iron - water. An analysis of the measured attenuation produced by these shields leads to the conclusion that the presence of the first layer does not influence the character of attenuation of the neutron flux in the second layer. Secondary effects connected with resonant neutrons produced at the boundary of the two materials are discussed. It is recommended that the second layer

Card 1/2 UDC: 621.039.512.45

Methods of making concrete blocks...

satisfactory. For experimental purposes type "100" concrete was used for making 2xlxl-m blocks, weighing 4.6 t with their lateral sides shaped in the form of keys and keyways. The vertical seams had a shielding ability equal to that of the horizontal seams. The shielding equivalency of walls made of precast concrete blocks and of monolithic concrete was confirmed by physical calculations made at the Laboratory for Nuclear Problems at the OIYal. A description is given of the process of manufacturing the precast blocks using a box formwork method in which diaphragms are used for shaping the lateral sides of the blocks. The system has important technical and economical advantages. There are 8 figures and 2 tables. The most important English-language reference is: E. Calan, Concrete for Radiation Shielding, "Journal of the American Concrete Institute", v. 25, No. 1, 1953.

Card 2/2

S/097/62/000/005/001/001
D034/D113

AUTHOR: Zaytsev, L.N., Engineer

TITLE: Methods of making concrete blocks for the shielding walls of buildings housing nuclear reactors and accelerators

PERIODICAL: Beton i zhelezobeton, no. 5, 1962, 227-230

TEXT: Until recently the shielding walls of nuclear reactors were made of monolithic or reinforced concrete. The trend is to use separate concrete blocks together with a dense mortar forming the seams. B. Price (Prays) et al. [Zashchita ot yadernykh izluchenii [Protection against nuclear radiation]. Izdatel'stvo inostrannoy literatury, 1959) state that variations in the concrete density near the working horizontal seam produce a negligible increase in the radiation dose. On this basis, at the Beloyarskaya atomnaya elektrostantsiya (Beloyarskoye Nuclear Electric Power Plant) the shielding wall was made of precast concrete blocks, measuring 1.855x1.785x1.850 m and weighing 13.6 t, which were placed on a heavy solution mortar, forming a 1-cm-thick seam. The seam density checked with a gamma-installation was

Card 1/2

L 28845-66

ACC NR: AP6013737

groups were tested in the concrete containing 0.35wt.% of hydrogen. In addition, the behavior of intermediate neutrons was investigated for 0.7 and 1wt.% of hydrogen content. A table is presented giving neutron attenuation lengths (λ, kg/m^2) for concrete of 1500 to 5000 kg/sq m thickness with respect to various energy levels of protons bombarding a beryllium target. The table contains also the calculated ratio λ/λ_{in} (where λ_{in} is the length of inelastic interaction with neutron nuclei of energy higher than 100 Mev). The authors conclude that the attenuation of high-energy neutrons (several hundred Mev) is characterized by the relaxation length defined by the equation: $\lambda \approx (1.3 \pm 0.1)\lambda_{in}$. The factors characterizing the accumulation of intermediate neutrons in concrete with various hydrogen contents are also presented in a table. Orig. art. has: 2 tables and 1 graph.

SUB CODE: 18,20 / SUBM DATE: 18Nov65 / ORIG REF: 003 / OTH REF: 000

Card 2/2 CC

ACC NR: AP6013737 (A) SOURCE CODE: UR/0089/66/020/004/0355/0356

AUTHOR: Sychev, B. S.; Mal'kov, V. V.; Komochkov, M. M.; Zaytsev, L. N.

ORG: None

TITLE: Passage of high-energy neutrons through a heavy concrete shielding

SOURCE: Atomnaya energiya, v. 20, no. 4, 1966, 355-356

TOPIC TAGS: neutron energy distribution, neutron shielding, nuclear shielding, concrete

ABSTRACT: The authors present in a brief form the results of their experiments, conducted in the OIYaI synchrocyclotron laboratory, on shielding consisting of a series of slabs (53 mm thick). The slabs are made of heavy (hematite) concrete having a density of 3480 kg/cu m. The chemical composition of concrete slabs is given, being expressed in percent by weight. The content of hydrogen is 0.35wt.%. The experimental data characterizing the neutron attenuation for different energy groups are plotted for various concrete thicknesses (up to 4000 kg/sq m). The neutron groups include high-energy neutrons (E≥20 Mev), fast neutrons 2 to 20 Mev), intermediate neutrons (E about 1.44 ev). These three

Card 1/2 UDC: 621.039.512.45

L 28845-66
ACC NR: AP6013737

ACC NR: AM6023941

TABLE OF CONTENTS [abridged]:

SUB CODE: 18/11/ SUBM DATE: 16Feb66/ ORIG REF: 108/ OTH REF: 116

Card 2/2

L 28345-66 EPF(n)-2/EWA(h)/EWP(j)/EWT(m)/ETC(f)/EWG(m)/EWA(l) RM
ACC NR: AP6013289 (A) SOURCE CODE: UR/0096/66/000/004/0255/0256

ACC NR: AM6023941 Monograph UR/

Broder, D. L.; Zaytsev, L. N.; Komochkov, M. M. Mal'kov, V. V.; Sychev, B. S.

Concrete in the shielding of nuclear installations (Beton v zashchite yadernykh ustanovok) Moscow, Atomizdat, 1966. 239 p. illus., biblio., tables. 2050 copies printed.

TOPIC TAGS: accelerator, concrete, nuclear engineering, nuclear radiation, radiation shielding, reactor shielding

PURPOSE AND COVERAGE: This book is intended for designers of nuclear devices and readers working in the nuclear industry. Methods and techniques for swift evaluation of various nuclear shieldings are presented. Approximate methods of calculating concrete shieldings are covered in the following sequence: the determination of emitted radiation and its distribution, of the distribution of radiation fluxes along the thickness of the shield, and of the permissible radiation levels beyond the shield. Particular attention is given to the shieldings of high-power accelerators. Prof. A. N. Komarovskiy and Docent V. B. Dubrovskiy provided advice, and A. V. Kudryavtseva, A. M. Tugolukov, V. S. Kiselev, and P. A. Lavdanskiy cooperated.

Card 1/2 UDC: 621.039.538

ZAYTSEV, I.M.

Zirconyl group. Zhur. neorg. khim. 10 no.7:1581-1584 Jl '65.
(MIRA 18:8)

1. Institut obshchey i neorganicheskoy khimii imeni N.S. Kurnakova AN SSSR.

ZAYTSEV, L.M.; KOCHKAREV, G.S.; KOZHENKOVA, V.N.

Polynuclear zirconium compounds. Zhur. neorg. khim. 10 no.5:1088-1096 My '65. (MIRA 18:6)

1. Institut obshchey i neorganicheskoy khimii imeni Kurnakova AN SSSR.

ZAYTSEV, L.M.; BOCHKAREV, G.S.

Formation of oxo bridges in zirconium compounds. Zhur. neorg. khim. 9 no.12:2715-2718 D '64. (MIRA 18:2)

1. Institut obshchey i neorganicheskoy khimii imeni Kurnakova AN SSSR.

ZAYTSEV, L.M.

Zirconyl oxalate and its derivatives. Zhur. neorg. khim. 9 no.10: 2362-2374 O '64.

Behavior of the oxalate group in complex compounds Ibid.:2375-2380 (MIRA 17:12)

1. Institut obshchey i neorganicheskoy khimii im. N.S. Kurnakova AN SSSR.

ZAYTSEV, L.M.; BOCHKAREV, G.S.

Zirconyl oxalate solubility product. Zhur. neorg. khim. 9 no.9: 2122-2125 S '64.

(MIRA 17:11)

KHARITONOV, Yu.Ya.; ZAYTSEV, L.M.; BOCHKAREV, G.S.; YEVSTAF'YEVA, O.N.

Infrared absorption spectra of the complex compounds of zirconium (IV) with some oxygen-containing ligands. Zhur. neorg. khim. 9 no.7:1617-1623 Jl '64. (MIRA 17:9)

1. Institut obshchey i neorganicheskoy khimii imeni Kurnakova AN SSSR.

SHUBOCHKIN, L.K.; ZAYTSEV, L.M.

Apparatus for the simultaneous recording of the curves of heating and of changes in weight of a specimen with the use of a single batch. Zav. lab. 29 no.10:1269-1271 '63. (MIRA 16:12)

1. Institut obshchey i neorganicheskoy khimii imeni N.S. Kurnakova AN SSSR.

KAHRITONOV, Yu.Ya.; BOCHKAREV, G.S.; ZAYTSEV, L.M.

Infrared absorption spectra of complex zirconium (IV) oxalates. Zhur. neorg. khim. 9 no.6:1369-1381 Je '63 (MIRA 17:8)

1. Institut obshchey i neorganicheskoy khimii imeni Kurnakova AN SSSR.

BOCHKAREV, G.S.; ZAYTSEV, L.M.; KOZHENKOVA, V.N.

Complex oxalates of zirconium. Zhur. neorg. khim. 8 no.10:2248-2253 O '63. (MIRA 16:10)

1. Institut obshchey i neorganicheskoy khimii im. N.S. Kurnakova AN SSSR.

(Zirconium compounds) (Oxalates)

ZAYTSEV, L.M.; BOCHKAREV, G.S.

Synthesis of some oxalate compounds of zirconyl. Zhur.neorg.khim. 7 no.7:1552-1558 Jl '62. (MIRA 16:3)
(Zirconyl oxalate)

Peculiarities of the behavior ...

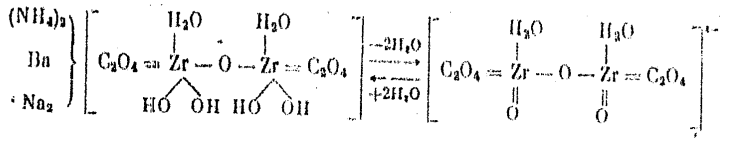
S/078/62/007/004/004/016
B101/B144

SUBMITTED: September 11, 1961

Card 4/4

Peculiarities of the behavior ...

The incomplete titration of the OH groups in the presence of KF is explained by dehydration and formation of binuclear compounds:



Condensation intensity depends on temperature, pH, and Zr concentration. This explains the amounts of g-equiv. OH^-/g-atom Zr varying between 1 and 2. The zirconium hydroxide precipitated with NH_3 from methanolic solution of $ZrOCl_2$ gave also ~3 g-equiv. OH^-/g-atom Zr corresponding to the formula $(OH)_3Zr\text{-}O\text{-}Zr(OH)_3$. The $Zr_2O_3^{2+}$ ion mentioned in publications is to define as an dizirconyl oxide. There are 3 figures and 6 tables. The most important English-language reference is: B. Lister. M. McDonald, J. Chem. Soc., 4315 (1952).

ASSOCIATION: Institut obshchey i neorganicheskoy khimii im. N. S. Kurnakova Akademii nauk SSSR (Institute of General and Inorganic Chemistry imeni N. S. Kurnakov of the Academy of Sciences USSR)